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EXAMINER	
MENBERU, BENIYAM	
ART UNIT	**PAPER NUMBER**
2625	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/835,163	HUDSON ET AL.	
	Examiner	Art Unit	
	Beniyam Menberu	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-34,36-41,43 and 44* is/are rejected.

7)☒ Claim(s) *35 and 42* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 6, 2007 has been entered.

Claim Objections

2. Claim 29 is objected to because of the following informalities: Claim 29, line 2, "form" should be "from". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 28 recites the limitation "the best-fit analysis" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 23, 24, 26, 27, 29, 31, 33, 34, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6549654 to Kumada in view of U.S. Patent No. 7161710 to MacLeod.

Regarding claims 23, Kumada discloses a method for printing, comprising:

obtaining color space requirements of a document to be printed, wherein

the requirements define a boundary of a color space associated with the document (Figure 25, reference s1101; column 10, lines 13-28, 62-67; column 11, lines 5-10; The gamut of the image is equivalent to determining the boundary.);

obtaining a rendering intent from an author (column 9, lines 64-67; column 10, lines 1-3, lines 44-67; column 11, lines 1-10; Figure 23, reference s1104, s1107, s1105, s1108, s1106);

selecting a printer from among a plurality of printers based on a best fit as determined by the color space requirements of the document (Figure 25, reference s1101; column

10, lines 13-28, 62-67; column 11, lines 5-10), the rendering intent of the author (column 9, lines 64-67; column 10, lines 1-3, lines 44-67; column 11, lines 1-10; Figure 23, reference s1104, s1107, s1105, s1108, s1106) and gamuts of each of the plurality of printers, wherein each gamut defines a boundary of a device colors space indicating colors printable by the printer (column 10, lines 62-67; column 11, lines 10; column 13, lines 15-20, 57-67; column 14, lines 1-43; The "output ability" corresponds to the gamut of the printers. (Figure 1, column 1, lines 18-29). However Kumada does not disclose determining if color mapping is needed, and if so selecting a color map from a selection comprising:

a first color map configured to map colors, located between the boundary of the device colors space and the boundary of the input color space, to the boundary of the device colors space, and to not map colors within the device colors space to preserve their accuracy; and

a second color map configured to map colors, located between the boundary of the device colors space and the boundary of the input color space, past the boundary of the device colors space and into the device colors space, and to map colors within the device colors space to preserve color separation between them and the colors mapped into the device colors space.

MacLeod discloses

determining if color mapping is needed, and if so selecting a color map from a selection comprising (column 8, lines 22-53; column 9, lines 10-18):

a first color map configured to map colors, located between the boundary of the device

colors space and the boundary of the input color space, to the boundary of the device colors space, and to not map colors within the device colors space to preserve their accuracy (column 4, lines 41-46, 60-7; column 5, lines 1-23); and

a second color map configured to map colors, located between the boundary of the device colors space and the boundary of the input color space, past the boundary of the device colors space and into the device colors space, and to map colors within the device colors space to preserve color separation between them and the colors mapped into the device colors space (column 4, lines 45-52).

Kumada and MacLeod are combinable because they are in the similar problem area of color processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the color mapping of MacLeod with the system of Kumada to implement various color mapping method.

The motivation to combine the reference is clear because the different color mapping method provide convenience for selective color printing (column 5, lines 10-21).

Regarding claim 24, Kumada in view of MacLeod teach all the limitations of claim 23. Further MacLeod discloses the method of Claim 23, wherein selecting the color map additionally comprises:

giving an author an opportunity to select a color map that balances preservation of color accuracy against color separation (column 11, lines 16-26; "calorimetric"(column 4, lines

60-67;column 5, lines 1-22) and "perceptual"(column 4, lines 46-52)); and using the selected color map in printer selection (column 11, lines 30-41).

Regarding claim 26, Kumada in view of MacLeod teach all the limitations of claim 23. Further MacLeod discloses the method of claim 23, additionally comprising: mapping colors within the document according to the selected color map; and printing the document (column 7, lines 30-53; column 8, lines 22-40; column 9, lines 21-29).

Regarding claims 27, Kumada in view of MacLeod teach all the limitations of claim 23. Further Kumada discloses the method of Claim 23, wherein determining if color mapping is needed is based on the color space requirements of the document, the rendering intent of the author and the device colors space of the selected printer (column 15, lines 9-22; column 10, lines 62-67; column 11, lines 1-10, 43-63; column 12, lines 24- 31; Thus colors are mapped to white if needed when it is not reproducible which is based on the gamut of document and printer and further in Figure 25, the gamut check of image (S1107) is based on rendering selection in S1104 ("Yes")).

Regarding claim 29, Kumada in view of MacLeod teach all the limitations of claim 23. Further Kumada discloses the method of claim 23, wherein gamuts of each of the plurality of printers are obtained form a library of printer gamut information (column 2, lines 3-6; column 5, lines 25-29).

Regarding claim 31, Kumada discloses a print system, comprising: a documents requirement module configured to obtain a color space requirements of a document to

be printed, wherein the requirements define a boundary of a color space associated with the document (Figure 25, reference s1101; column 10, lines 13-28, 62-67; column 11, lines 5-10; The gamut of the image is equivalent to determining the boundary.);

a preferences interface configured to obtain a rendering intent from an author (column 9, lines 64-67; column 10, lines 1-3, lines 44-67; column 11, lines 1-10; Figure 23, reference s1104, s1107, s1105, s1108, s1106); and

an evaluation module configured for selecting a printer from among a plurality of printers based on a best fit as determined by the color space requirements of the document (Figure 25, reference s1101; column 10, lines 13-28, 62-67; column 11, lines 5-10), the rendering intent of the author (column 9, lines 64-67; column 10, lines 1-3, lines 44-67; column 11, lines 1-10; Figure 23, reference s1104, s1107, s1105, s1108, s1106) and gamuts of each of the plurality of printers, wherein each gamut defines a boundary of a device colors space indicating colors printable by the printer (column 10, lines 62-67; column 11, lines 10; column 13, lines 15-20, 57-67; column 14, lines 1-43; The "output ability" corresponds to the gamut of the printers. (Figure 1, column 1, lines 18-29).

However Kumada does not disclose wherein the evaluation module determines if color mapping is needed, and if so uses a color map from a selection comprising:

a first color map based on absolute colorimetric rendering intent, wherein colors between the boundary of the device colors space and the boundary of the input color space are mapped to the boundary of the device colors space, and colors within the device colors space are not mapped to preserve their accuracy; and

a second color map based on perceptual rendering intent, wherein colors between the

boundary of the device colors space and the boundary of the input color space are mapped past the boundary of the device colors space and into the device colors space, and colors within the device colors space are mapped to preserve color separation between them and the colors mapped into the device colors space.

MacLeod discloses wherein the evaluation module determines if color mapping is needed, and if so uses a color map from a selection comprising (column 8, lines 22-53; column 9, lines 10-18):

a first color map based on absolute colorimetric rendering intent, wherein colors between the boundary of the device colors space and the boundary of the input color space are mapped to the boundary of the device colors space, and colors within the device colors space are not mapped to preserve their accuracy (column 4, lines 41-46, 60-7; column 5, lines 1-23); and

a second color map based on perceptual rendering intent, wherein colors between the boundary of the device colors space and the boundary of the input color space are mapped past the boundary of the device colors space and into the device colors space, and colors within the device colors space are mapped to preserve color separation between them and the colors mapped into the device colors space (column 4, lines 45-52).

Kumada and MacLeod are combinable because they are in the similar problem area of color processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the color mapping of MacLeod with the system of Kumada to implement various color mapping method.

The motivation to combine the reference is clear because the different color mapping method provide convenience for selective color printing (column 5, lines 10-21).

Regarding claim 33, Kumada in view of MacLeod teach all the limitations claim 31. Further MacLeod discloses the print system of Claim 31, wherein the print system is configured to allow selection between the color maps, and the selection comprises: selecting the color map based on absolute colorimetric rendering intent when user input indicates a preference to preserve color accuracy within the device colors space; and selecting a color map based on perceptual rendering intent when user input indicates a preference to preserve color separation between colors within the device colors space and colors outside the device colors space (column 11, lines 18-26; column 4, lines 45-52; column 5, lines 8-23, 50-59).

Regarding claim 34, Kumada in view of MacLeod teach all the limitations of claim 31. Further Kumada disclose the print system of Claim 31, wherein the evaluation module obtains the gamuts of each of the plurality of printers from: a library of printer gamut information; or directly from the plurality of printers (column 2, lines 3-6; column 5, lines 25-29).

Regarding claim 36, Kumada in view of MacLeod teach all the limitations of claim 31. Further MacLeod discloses the printer system of claim 31, wherein the printer

system is configured to allow selection between the first and second color map based on an author's indicated preference for absolute colorimetric rendering intent or perceptual rendering intent (column 11, lines 19-26; column 4, lines 45-67; column 5, lines 1-22).

8. Claims 25 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6549654 to Kumada in view of U.S. Patent No. 7161710 to MacLeod further in view of U.S. Patent No. 6437792 to Ito et al.

Regarding claim 25, Kumada in view of MacLeod teaches all the limitations of claim 23. However Kumada in view of MacLeod does not disclose the method of Claim 23, wherein the selection of color maps additionally comprises:
a third color map, which balances not mapping device colors to preserve their accuracy against mapping device colors to preserve color separation between device colors and colors mapped into the device colors space, wherein the balancing comprises mapping device colors by less distance within the device colors space than they are mapped by the second mapping.

Ito et al disclose wherein the selection of color maps additionally comprises:
a third color map, which balances not mapping device colors to preserve their accuracy against mapping device colors to preserve color separation between device colors and colors mapped into the device colors space, wherein the balancing comprises mapping device colors by less distance within the device colors space than they are mapped by the second mapping (Figure 34; parameter "K"; column 22, lines 22-67; column 23, lines 1-27; By adjusting K some areas are mapped inside the printer gamut and other areas

are not mapped. By doing this the mapping of areas to the left of K is reduced to zero while areas to the right are mapped. In the second mapping all the area within gamut of output are mapped, but by using the K parameter the mapping area can be controlled to map all the areas in the printer gamut to no areas in the printer gamut (column 22, lines 50-55).).

Kumada, MacLeod, and Ito et al are combinable because they are in the similar problem area of color processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the color mapping of Ito et al with the system of Kumada and MacLeod to implement a balanced color mapping system.

The motivation to combine the reference is clear because it provides flexibility in color mapping (column 22, lines 29-40, 41-54).

Regarding claim 32, Kumada in view of MacLeod teach all the limitations of claim 31. Further Ito et al disclose the print system of Claim 31, wherein the selection additionally comprises:

a third color map, configured combine characteristics of the first and second color maps (Figure 34; parameter "K"; column 22, lines 22-67; column 23, lines 1-27; By adjusting K some areas are mapped inside the printer gamut and other areas are not mapped. By doing the mapping of areas to the left of K is reduced to zero while areas to the right are mapped. In the second mapping all the area within gamut of output are mapped, but by using the K parameter the mapping area can be controlled to map all the areas in the printer gamut to no areas in the printer gamut (column 22, lines 50-55).).

9. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6549654 to Kumada in view of U.S. Patent No. 7161710 to MacLeod further in view of U.S. Patent No. 6633400 to Sasaki et al.

Regarding claim 30, Kumada in view of MacLeod teach all the limitations of claim 23. However Kumada in view of MacLeod does not disclose wherein gamuts of each of the plurality of printers are obtained directly from the printers themselves.

Sasaki et al discloses wherein gamuts of each of the plurality of printers are obtained directly from the printers themselves (column 7, lines 42-45; column 8, lines 20-33).

Kumada, MacLeod, and Sasaki et al are combinable because they are in the similar problem area of color processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the gamut system of Sasaki et al with the system of Kumada in view of MacLeod to implement gamut information in a printer.

The motivation to combine the reference is clear because if a network printer is to be used and the printer is far away from the server, print profile changes can be made locally to the printer instead of at where the server is located.

10. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6549654 to Kumada in view of U.S. Patent No. 7161710 to MacLeod further in view of U.S. Patent No. 6268930 to Ohta et al.

Regarding claim 28, Kumada in view of MacLeod teach all the limitations of claim 23. wherein the best-fit analysis, comprises:

comparing a percentage of colors within the document included in each of the gamuts of each of the plurality of printers; or

comparing area within the document associated with colors in each of the gamuts of each of the plurality of printers (column 11, lines 45-64; column 13, lines 57-67; column 14, lines 1-25;The variables IA, IB, IC can represent amount of pixels(area) which are reproducible (within gamut of printers)). However Kumada in view of MacLeod does not disclose comparing volumes of the color space requirement of the document to the gamuts of each of the plurality of printers.

Ohta et al disclose comparing volumes of the color space requirement of the document to the gamuts of each of the plurality of printers. (Ohta et al disclose the use of polyhedron to determine whether image signals are within gamut of output device where the polyhedron is a 3-dimensional figure representing volume of the gamut of output device (column 5, lines 9-21)).

Kumada, MacLeod, and Ohta et al are combinable because they are in the similar problem area of color processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the gamut comparing of Ohta et al with the system of Kumada in view of MacLeod to implement gamut comparison for each printers.

The motivation to combine the reference is clear because by using the system of Ohta et al, the optimum printer which covers the gamut of the color document can be utilized for printing.

11. Claims 37, 38, 40, 43, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6549654 to Kumada in view of U.S. Patent No. 7161710 to MacLeod further in view of U.S. Patent No. 6222648 to Wolf et al.

Regarding claim 38, Kumada discloses a print system configured to select a printer to print a document, comprising:

a plurality of printers, wherein a gamut of each printer is defined by a boundary indicating a device colors space comprising colors printable by the printer (Figure 1; Figure 8; column 5, lines 5-11);

a print server configured to select a printer from among the plurality of printers (Figure 8, reference 1; Figure 9, reference 19; column 5, lines 12-39; column 6, lines 36-46), wherein the selecting is based on a best fit analysis as determined by color space requirements of the document (Figure 25, reference s1101; column 10, lines 13-28, 62-67; column 11, lines 5-10), a rendering intent of an author (column 9, lines 64-67; column 10, lines 1-3, lines 44-67; column 11, lines 1-10; Figure 23, reference s1104, s1107, s1105, s1108, s1106) and gamuts of each of the plurality of printers (column 10,

lines 62-67; column 11, lines 10; column 13, lines 15-20, 57-67; column 14, lines 1-43; The "output ability" corresponds to the gamut of the printers. (Figure 1, column 1, lines 18-29)). However Kumada does not disclose a custom gamut mapping module, comprising:

a) a first color map based on absolute colorimetric rendering intent, wherein colors outside the boundary of a device colors space are mapped to the boundary of the device colors space, and colors within the device colors space are not mapped to preserve their accuracy; and

b) a second color map based on perceptual rendering intent, wherein colors outside the boundary of the input color space are mapped into the device colors space, and colors within the device colors space are mapped to preserve color separation between the them and the colors mapped into the device colors space

c) a sensor array configured to evaluate printed documents and update the boundary defining the device colors space for each printer;

MacLeod discloses

a) a first color map based on absolute colorimetric rendering intent, wherein colors outside the boundary of a device colors space are mapped to the boundary of the device colors space, and colors within the device colors space are not mapped to preserve their accuracy (column 4, lines 41-46, 60-7; column 5, lines 1-23); and

b) a second color map based on perceptual rendering intent, wherein colors outside the boundary of the input color space are mapped into the device colors space, and colors

within the device colors space are mapped to preserve color separation between the them and the colors mapped into the device colors space (column 4, lines 45-52)

Wolf et al disclose c) a sensor array configured to evaluate printed documents and update the boundary defining the device colors space for each printer (column 2, lines 63-67; column 3, lines 1-20; column 5, lines 19-38;).

Kumada, MacLeod, and Wofl et al are combinable because they are in the similar problem area of color processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the color mapping of MacLeod and the gamut updating of Wolf et al to implement selection of color map and up to date gamut of printers.

The motivation to combine the reference is clear because the different color mapping method provide convenience for selective color printing (column 5, lines 10-21) and the system of Wolf et al provides for correct printing system with respect to colors (column 5, lines 19-19-25).

Regarding claim 37, Kumada in view of MacLeod teach all the limitations of claim 31. Further Wolf et al disclose the printer system of claim 31, additionally comprising: a sensor array configured to evaluate printed documents and update the boundary defining the device colors space of each printer (column 2, lines 63-67; column 3, lines 1-20; column 5, lines 19-38;).

Regarding claim 40, Kumada in view of MacLeod further in view of Wolf et al teach all the limitations of claim 38. Further MacLeod discloses the print system of Claim 38, wherein the print system is configured to allow selection between the color

maps, and the selection comprises:

selecting the color map based on absolute colorimetric rendering intent when user input indicates preference to preserve color accuracy within the device colors space; and selecting a color map based on perceptual rendering intent when user input indicates preference to preserve color separation between colors within the device colors space and colors outside the device colors space (column 11, lines 18-26; column 4, lines 45-52; column 5, lines 8-23, 50-59).

Regarding claim 43, Kumada in view of MacLeod further in view of Wolf et al teach all the limitations of claim 38. Further Kumada discloses the print system of claim 38, wherein determining if color mapping is needed is based on the color space requirements of the document, the rendering intent of the author and the device colors space of the selected printer (column 15, lines 9-22; column 10, lines 62-67; column 11, lines 1-10, 43-63; column 12, lines 24- 31; Thus colors are mapped to white if needed when it is not reproducible which is based on the gamut of document and printer and further in Figure 25, the gamut check of image (S1107) is based on rendering selection in S1104 ("Yes")).

Regarding claim 44, Kumada in view of MacLeod further in view of Wolf et al teach all the limitations of claim 38. Further Kumada discloses the print system of claim 38, wherein the best-fit analysis, comprises:

using an algorithm to determine best fit, wherein the algorithm is selected in response to input from the author (Figure 25, reference s1101, s1102, s1107, s1108, s1105, s1106; column 10, lines 25-67).

12. Claims 39 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6549654 to Kumada in view of U.S. Patent No. 7161710 to MacLeod further in view of U.S. Patent No. 6222648 to Wolf et al further in view of U.S. Patent No. 6437792 to Ito et al.

Regarding claim 39, Kumada in view of MacLeod further in view of Wolf et al teach all the limitations of 38. However Kumada in view of MacLeod further in view of Wolf et al does not disclose the print system of Claim 38, wherein the custom gamut mapping module additionally comprises:

a third color map configured to map device colors by less distance in the device colors space than the colors are mapped by the second mapping.

Ito et al disclose wherein the custom gamut mapping module additionally comprises:

a third color map configured to map device colors by less distance in the device colors space than the colors are mapped by the second mapping (Figure 34; parameter "K"; column 22, lines 22-67; column 23, lines 1-27; By adjusting K some areas are mapped inside the printer gamut and other areas are not mapped. By doing this the mapping of areas to the left of K is reduced to zero while areas to the right are mapped. In the second mapping all the area within gamut of output are mapped, but by using the K parameter the mapping area can be controlled to map all the areas in the printer gamut to no areas in the printer gamut (column 22, lines 50-55).).

Kumada, MacLeod, Wolf et al, and Ito et al are combinable because they are in the similar problem area of color processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the color mapping of Ito et al with the system of Kumada, MacLeod, Wolf et al to implement balanced color mapping system.

The motivation to combine the reference is clear because it provides flexibility in color mapping (column 22, lines 29-40, 41-54).

Regarding claim 41, Kumada in view of MacLeod further in view of Wolf et al teach all the limitations of 38. Further Ito et al disclose the print system of Claim 38, wherein the print system is configured to allow selection between the color maps, and the selection additionally comprises:

selecting a color map that balances preservation of color accuracy and color separation when indicated by user input (Figure 34; parameter "K"; column 22, lines 22-67; column 23, lines 1-27; By adjusting K some areas are mapped inside the printer gamut and other areas are not mapped. By doing this the mapping of areas to the left of K is reduced to zero while areas to the right are mapped. In the second mapping all the area within gamut of output are mapped, but by using the K parameter the mapping area can be controlled to map all the areas in the printer gamut to no areas in the printer gamut (column 22, lines 50-55).).

Allowable Subject Matter

13. Claims 35 and 42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Prior Art Cited

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 7230737 to Ohga disclose image processor with color adjustment.

U.S. Patent No. 6198843 to Nakauchi et al disclose color transformation system.

U.S. Patent Application Publication No. US 2003/0164968 A1 to Iida disclose mapping system for color transformation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beniyam Menberu whose telephone number is (571) 272-7465. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on (571) 272-7314. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600. The group receptionist number for TC 2600 is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

Beniyam Menberu

BM

06/23/2007

KAWilliams

KIMBERLY WILLIAMS
PRIMARY PATENT EXAMINER